Everblue Training Institute

Course Description for: BPI Building Analyst/Energy Auditor Training

Short Description: This course is intended for individuals that want to become BPI Building Analysts in the residential building industry. Students will learn the fundamentals of energy and energy transfer, energy systems within a home, the "home as a system" concept, common construction errors that reduce comfort and efficiency, weatherization techniques, and how to conduct an energy audit.

Long Description: This course is intended for individuals that want to become BPI Building Analysts in the residential building industry. Students will learn the fundamentals of energy and energy transfer, energy systems within a home, the "home as a system" concept, common construction errors that reduce comfort and efficiency, weatherization techniques, and how to conduct an energy audit. Students will analyze how systems and home attributes such as air leaks, insulation, barriers (air, thermal and moisture) and heating and cooling ducts affect occupant health, safety and comfort, energy efficiency and durability. Solutions and/or weatherization techniques will be proposed for each problem identified. The course will include classroom and field training using analysis tools including a blower door, manometer, carbon monoxide tester, natural gas detector and flue gas detector. The instructor will also review other tools commonly used for by energy auditors and weatherization professionals including infrared cameras and duct blasters. Course materials, classroom and field training, practice questions, written exam and field exam are all included in the course.

Target Audience: Weatherization Professionals, HVAC Professionals, Insulation Professionals, HERS Raters, Home Inspectors, General Contractors, Home Builders, Engineers, Architects

Course Objectives:

- Understand the principles of energy transfer
- Know the basic energy systems that impact a home's energy consumption
- Identify common construction errors that reduce efficiency, air quality, and comfort
- Conduct an energy audit
- Analyze problems and propose solutions and/or weatherization techniques

Pricing Recommendation: $1595.00 (includes course materials, classroom and field training, written and field exams)

Length of Course: 5 days.

Syllabus:

Day 1—Classroom training from 8:30 am to 5:00 pm.

Days 2-3—Classroom training from 9:00 am to noon and field training from 1:00-5:00 pm.

Day 4 morning—Review 8:00-10:00am, Written Exam 10:00am -12:00pm.

Day 4 afternoon and day 5—Individual field exam time slots Day 4 afternoon, all day on Day 5.

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
MORNING	Classroom Training	Classroom Training	Classroom Training	Review	Field Exam #4
				Written Test	Field Exam #5
	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break
AFTERNOON	Classroom Training	Field Training	Field Training	Field Exam #1	Field Exam #6
				Field Exam #2	Field Exam #7
				Field Exam #3	Field Exam #8

Section 1: Introduction

-Overview of the Building Performance Institute

-Test Format & Exam Interface

Section 2: Principles of Energy

Section 3: The Home as a System

Section 4: Building Systems

Section 5: Common Construction Errors

-Air Quality

-Moisture

-Combustion Safety

-Air Leakage

Section 6: Energy Audit Procedures

Section 7: Diagnosis of Problems, Proposed Solutions

Section 8: BPI Standards

Section 9: Professional Ethics, Conduct, and Communications

Field Training:

- Energy Audit-Inspection and Analysis

-Blower door analysis—Pressure testing

-Manometer use and application

-Air Quality testing (Ambient Carbon Monoxide, Natural gas, Flue gas detectors)